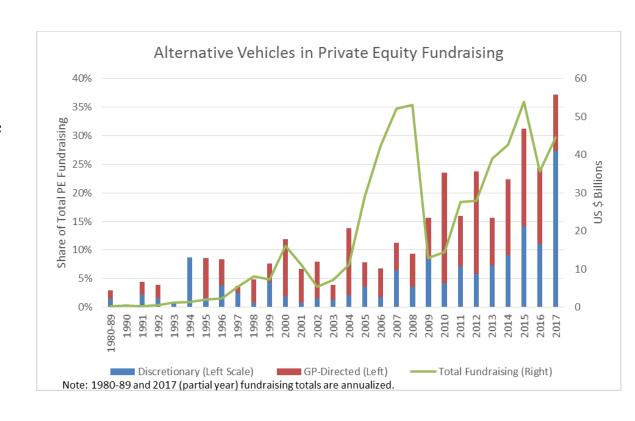
Further, fees for retail products are high.

- Investors in PE funds (LPs) pay high fees for investment products already.
 - Generally 2% on the capital invested in a PE fund plus 20 % of profits (called "carry").
 - The study noted that buyout fund managers in particular earn high fees on a "per partner" basis.
- Retail-focused PE products have typically had an additional layer of fees.
 - In addition to the underlying "2 & 20" fees associated with PE funds.
 - A few examples of such additional fees from past/ existing products:
 - 1.2% management fee, sales load of up to 3.5%, and redemption fee of 2.0 %.
 - 1.75% in management fees and operating expenses.
 - 2.31% expense ratio for a PE mutual fund product.
 - Much higher than the 1.32% average for mutual funds in the same category (World Small/Mid Stock funds).
 - May negate all of remaining alpha.

Source: Metrick, Andrew and Ayako Yasuda. "The economics of private equity funds." The Society for Financial Studies (2010). Strauss, Lawrence C. "The problem with private-equity funds for the masses." Barrons, March 26, 2016. https://www.barrons.com/articles/pitching-private-equity-to-the-masses-1458970075. Accessed September 9, 2020.; "ALPS | Red Rocks listed private equity fund class A: LPEFX." Charles Schwab. Generated September 9, 2020.; Papagiannis, Nadia. "Private equity funds for the masses: What investors should know be fore they dive in." Morningstar. April 11, 2013. https://www.morningstar.com/articles/591832/private-equity-funds-for-the-masses. Accessed September 9, 2020.

Some see co-investments as a solution.

- Co-investments are made alongside a fund.
 - Rather than through the fund itself.
 - They generally have lower fees than investing in the fund.
- A recent study found that co -investments are increasingly popular.



However, co-investments can be challenging.

- Using data for 1980-2017, the same study found that alterative vehicles (i.e., co-investments) underperformed the main fund.
 - Driven by large negative investments.
- However, alternative vehicles formed between 2009 and 2014 were shown to outperform the main fund on average.
 - The improvement was driven by discretionary investments by LPs.*
 - Rather than investments directed by the fund managers.
 - This signals that LPs are learning (or a forgiving market).

Adjusted excess PME performance of alternative vehicles (i.e. co-investments)

Year of Formation	N	Weighted avg.	p-value	Median
1980-2017	1,467	-0.0582	0 .0 10	0.002
2009 -2014	486	+0.058	0.009	0.005

^{*}Limited partners (LPs) are the groups that commit capital to a PE fund that is then invested by the fund manager into companies/deals. Note: Alternative vehicles include both discretionary and GP-directed vehicles.

Source: Lerner, Josh, Jason Mao, Antoinette Schoar, and Nan R. Zhang. "Investing outside the box: Evidence from alternative vehicles in private equity." Harvard Business School Entrepreneurial Management Working Paper No. 19-012 Harvard Business School Finance Working Paper No. 19-012 (20 20).

Final thoughts

- There are reasons that PE can be attractive to retail investors.
 - Such as potential diversification benefits.
- There are also reasons that PE might not be an appropriate investment for some retail investors.
 - Data on fees and recent performance suggest potential drawbacks.
- I hope these remarks are helpful to the committee in its deliberations.

Thank You!



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